

# WEST Search History

DATE: Monday, March 25, 2002

## Set Name Query

side by side

*DB=USPT,PGPB; PLUR=YES; OP=ADJ*

L8 11 and 12 and 15 and 17

L7 loft\$2 same web and x\$1 same y\$1 same z\$1 and  
directions

L6 11 and 12 and 13 and 15

L5 plurality same ridges and surfaces

L4 L3

L3 z\$1direction same orientation

L2 plurality and continuous same (fibers or fibres)

L1 (non\$1woven or un\$1woven) and web

## Hit Count Set Name result set

6 L8

76 L7

6 L6

16313 L5

400 L4

400 L3

18644 L2

14605 L1

END OF SEARCH HISTORY

**Set Name Query**

side by side

*DB=USPT,PGPB,DWPI; PLUR=YES; OP=ADJ*L7 l1 and l2 and l4 and l6L6 loft\$2 same web and x\$1 same y\$1 same z\$1 and  
directionsL5 l1 and l2 and l3 and l4L4 plurality same loops and surfacesL3 z\$1 direction same orientationL2 plurality and continuous same (fibers or fibres)L1 (non\$1woven or un\$1woven) and web**Hit Count Set Name**  
result set2 L794 L63 L529086 L41521 L322130 L223024 L1

END OF SEARCH HISTORY

**WEST**[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 6 of 6 returned.**☐ 1. Document ID: US 20010054777 A1

L8: Entry 1 of 6

File: PGPB

Dec 27, 2001

PGPUB-DOCUMENT-NUMBER: 20010054777

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010054777 A1

TITLE: Materials having z-direction fibers and folds and method for producing same

PUBLICATION-DATE: December 27, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
White, Edward Jason	Mauldin	SC	US	
Brown, Kurtis Lee	Alpharetta	GA	US	
Conrad, John Herbert	Alpharetta	GA	US	
Gerndt, Robert James	Roswell	GA	US	
Maldonado, Jose Enrique	Alpharetta	GA	US	

US-CL-CURRENT: 264/103; 156/148, 156/176, 156/180, 264/171.1

## ABSTRACT:

A method for producing a material having z-direction ridges or folds in which a layer of continuous fibers is conveyed on a first moving surface into a nip formed by the first moving surface and a second moving surface which is traveling at a slower speed than the first moving surface, resulting in formation of a plurality of z-direction loops in the fibers giving loft to the material and a wave pattern producing ridges on both major surfaces of the resultant nonwoven web. The method permits easy real time adjustment of manufacturing parameters to produce a variety of materials. The method further produces lofty nonwovens at a commercially viable rate.

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)[Full](#) [Draw Desc](#) [Image](#)☒ 2. Document ID: US 6316688 B1

L8: Entry 2 of 6

File: USPT

Nov 13, 2001

US-PAT-NO: 6316688

DOCUMENT-IDENTIFIER: US 6316688 B1

TITLE: Sanitary napkin comprising three dimensionally shaped tube  
of absorbent material

DATE-ISSUED: November 13, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hammons; John Lee	Hamilton	OH		
McFall; Ronald Ray	West Chester	OH		
Noel; John Richard	Cincinnati	OH		
Gann; Diana Lynne	Lebanon	OH		
Hines; Letha Margie	Cincinnati	OH		
Grandison; Kevin Eugene	Caracas			VEX
Osborn, III; Thomas Ward	Cincinnati	OH		

US-CL-CURRENT: 604/378; 604/385.01, 604/385.17

## ABSTRACT:

A sanitary napkin that has a three dimensionally-shaped tube of absorbent material and method of making the same is disclosed. The sanitary napkin comprises: a base pad having a body-facing side, a garment-facing side, and a longitudinal centerline. A tube of absorbent material extends outward from the body-facing side of the base pad and is aligned along the longitudinal centerline of the base pad. In one embodiment, the tube of absorbent material comprises an absorbent material and a cover at least partially wrapping the absorbent material. In this embodiment, the absorbent material is penetrated by autogenous bonds that join one portion of the cover to an opposing portion of the cover. The bonds are selectively placed to provide the tube of absorbent material with a distinct three-dimensional shape.

24 Claims, 34 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 15

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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FWMC	Draw Desc	Image
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☒ 3. Document ID: US 6183587 B1

L8: Entry 3 of 6

File: USPT

Feb 6, 2001

US-PAT-NO: 6183587

DOCUMENT-IDENTIFIER: US 6183587 B1

TITLE: Method of making sanitary napkin comprising three dimensionally shaped tube of absorbent material

DATE-ISSUED: February 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
McFall; Ronald Ray	West Chester	OH		
Hammons; John Lee	Hamilton	OH		
Gann; Diana Lynn	Lebanon	OH		
Noel; John Richard	Cincinnati	OH		

US-CL-CURRENT: 156/201; 156/202, 156/204, 156/216, 156/227,  
156/269, 156/270, 156/290, 156/292, 156/308.2, 156/308.4, 156/73.1,  
604/367, 604/385.01

ABSTRACT:

The method of making a shaped tube of absorbent material for the sanitary napkin, in one embodiment, involves the steps of: (a) providing a web of absorbent material, the web of absorbent material having a length, a width, a longitudinal centerline oriented in the direction of the length of the web of absorbent material, a first surface and an opposed second surface; (b) providing a cover for the first and second surfaces of the web of absorbent material; (c) at least partially covering the first and second surfaces of the web of absorbent material with the cover to form a composite web having longitudinal side margins; (d) folding the composite web at least once with folds defining fold lines that are arranged about the longitudinal centerline of the web of absorbent material; and (e) autogenously bonding a portion of the cover that covers the first surface of the web of absorbent material to a portion of the cover that covers an opposing portion of the second surface of the web of absorbent material.

8 Claims, 54 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 15

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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FWMC	Draw Desc	Image
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☒ 4. Document ID: US 5888607 A

L8: Entry 4 of 6

File: USPT

Mar 30, 1999

US-PAT-NO: 5888607

DOCUMENT-IDENTIFIER: US 5888607 A

TITLE: Soft loop laminate and method of making

DATE-ISSUED: March 30, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Seth; Jayshree	Woodbury	MN		
Rogers; John J.	St. Paul	MN		

US-CL-CURRENT: 428/92; 428/101, 428/95, 428/97, 428/99

## ABSTRACT:

There is provided a soft nonwoven fibrous loop material for use in hook and loop fastening systems. The nonwoven fibrous loop material of the invention contains an open fibrous loop layer comprised predominately of polypropylene polymer, copolymer or blend fibers. The nonwoven fibrous loop layer material is autogeneously bonded to a backing layer formed of polypropylene polymers or copolymers having a percent isotacticity of less than 70%, optionally with additional layers present provided so that the overall nonwoven fibrous loop material is a laminate having a circular bend stiffness of less than about 9 Newton and having tensile strength of at least 1500 g/2.54 cm-width.

40 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

Full	Title	Citation	Front	Review	Classification	Date	References	Sequences	Attachments
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MM	Draw	Desc	Image
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☒ 5. Document ID: US 5797894 A

L8: Entry 5 of 6

File: USPT

Aug 25, 1998

US-PAT-NO: 5797894

DOCUMENT-IDENTIFIER: US 5797894 A

TITLE: Unitized sanitary napkin

DATE-ISSUED: August 25, 1998

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cadieux; Serge	Pierrefonds			CAX
Levesque; Yvon	Montreal			CAX

US-CL-CURRENT: 604/378

## ABSTRACT:

This invention relates to a novel absorbent structure and absorbent products containing this absorbent structure. More particularly, the absorbent structure of this invention contains a high-loft, bulky, low-density cover layer, a higher density transfer layer, a very high density, retentive reservoir layer and an impermeable

barrier layer. The cover and barrier layers are sealed around their periphery and, preferably, all the layers are bonded to each other to form a unitized structure.

16 Claims, 9 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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FWMC	Drawing Desc	Image
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☒ 6. Document ID: US 5374260 A

L8: Entry 6 of 6

File: USPT

Dec 20, 1994

US-PAT-NO: 5374260  
DOCUMENT-IDENTIFIER: US 5374260 A

TITLE: Unitized sanitary napkin

DATE-ISSUED: December 20, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lemay; Martin	Montreal			CAX
Lariviere; Christiane	Lavaltrie			CAX
Comeau; Daniel	Lachenaie			CAX
Levesque; Yvon	Montreal			CAX

US-CL-CURRENT: 604/378; 604/358, 604/367, 604/371, 604/379,  
604/380, 604/385.04

ABSTRACT:

This invention relates to a novel absorbent structure and absorbent products containing this absorbent structure. More particularly, the absorbent structure of this invention is a flexible and retentive reservoir layer comprising a perf-embossed or tenderized peat board material.

8 Claims, 9 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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FWMC	Drawing Desc	Image
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has a first surface which defines the paper-contacting side of the belt, a second surface opposite the first surface, and conduits which extend between first and second surfaces of the belt. The first surface of the framework has a paper side network formed therein which defines the conduits. The second surface of the framework has a backside network with passageways that provide surface texture irregularities in the backside network. The papermaking belt is made by casting a photosensitive resinous material over and through the reinforcing structure while the reinforcing structure travels over a textured surface, and then exposing the photosensitive resinous material to light of an activating wavelength through a mask which has transparent and opaque regions. A process for making paper products is also disclosed which involves applying a fluid pressure differential from a vacuum source through the belt to a partially-formed embryonic web of papermaking fibers. The fibers in the embryonic web are deflected into the conduits of the papermaking belt by the vacuum pressure while the papermaking belt and the embryonic web travel over the vacuum source. Following the deflection, the paper web is impressed with the paper side network of the belt, and dried to form the final product.

20 Claims, 55 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 24

Full Title Citation Front Review Classification Date Reference Sequences Attachment

NAME Draw Desc Image

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Term	Documents
(3 AND 2 AND 5 AND 1).USPT,PGPB.	6
(L1 AND L2 AND L3 AND L5).USPT,PGPB.	6

**Display Format:**

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[Previous Page](#)

[Next Page](#)



Term	Documents
(7 AND 2 AND 5 AND 1).USPT,PGPB.	6
(L1 AND L2 AND L5 AND L7).USPT,PGPB.	6

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**Search Results - Record(s) 1 through 6 of 6 returned.**☐ 1. Document ID: US 20010054777 A1

L6: Entry 1 of 6

File: PGPB

Dec 27, 2001

PGPUB-DOCUMENT-NUMBER: 20010054777

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010054777 A1

TITLE: Materials having z-direction fibers and folds and method for producing same

PUBLICATION-DATE: December 27, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
White, Edward Jason	Mauldin	SC	US	
Brown, Kurtis Lee	Alpharetta	GA	US	
Conrad, John Herbert	Alpharetta	GA	US	
Gerndt, Robert James	Roswell	GA	US	
Maldonado, Jose Enrique	Alpharetta	GA	US	

US-CL-CURRENT: 264/103; 156/148, 156/176, 156/180, 264/171.1

## ABSTRACT:

A method for producing a material having z-direction ridges or folds in which a layer of continuous fibers is conveyed on a first moving surface into a nip formed by the first moving surface and a second moving surface which is traveling at a slower speed than the first moving surface, resulting in formation of a plurality of z-direction loops in the fibers giving loft to the material and a wave pattern producing ridges on both major surfaces of the resultant nonwoven web. The method permits easy real time adjustment of manufacturing parameters to produce a variety of materials. The method further produces lofty nonwovens at a commercially viable rate.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw Desc	Image
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☐ 2. Document ID: US 6203654 B1

L6: Entry 2 of 6

File: USPT

Mar 20, 2001

US-PAT-NO: 6203654

DOCUMENT-IDENTIFIER: US 6203654 B1

TITLE: Method of making a slitted or particulate absorbent material

DATE-ISSUED: March 20, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
McFall; Ronald Ray	West Chester	OH		
Lavon; Gary Dean	West Chester	OH		
Kollner; Wilfried Maria	Cincinnati	OH		
Noel; John Richard	Cincinnati	OH		
Hammons; John Lee	Hamilton	OH		

US-CL-CURRENT: 156/268; 156/201, 156/202, 156/204, 156/216,  
156/227, 156/257, 156/270, 156/308.2, 156/308.4, 225/103, 225/97,  
604/378, 604/383, 604/385.01

## ABSTRACT:

A method of making a slitted or particulate absorbent material for an absorbent article such as sanitary napkins, diapers, incontinence devices, and the like. The method can be carried out in situ on another component of the absorbent article in a manufacturing process without cutting the other component. In one embodiment, the absorbent material is placed between two carrier webs, and a force is applied to the composite of the absorbent material and the carrier webs. The force breaks the absorbent material, but only deforms the carrier webs to provide a self-contained web of particulate material between two carrier webs.

28 Claims, 29 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 10

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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Full	Draw Desc	Image
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☐ 3. Document ID: US 5888607 A

L6: Entry 3 of 6

File: USPT

Mar 30, 1999

US-PAT-NO: 5888607

DOCUMENT-IDENTIFIER: US 5888607 A

TITLE: Soft loop laminate and method of making

DATE-ISSUED: March 30, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Seth; Jayshree	Woodbury	MN		
Rogers; John J.	St. Paul	MN		

US-CL-CURRENT: 428/92; 428/101, 428/95, 428/97, 428/99

## ABSTRACT:

There is provided a soft nonwoven fibrous loop material for use in hook and loop fastening systems. The nonwoven fibrous loop material of the invention contains an open fibrous loop layer comprised predominately of polypropylene polymer, copolymer or blend fibers. The nonwoven fibrous loop layer material is autogeneously bonded to a backing layer formed of polypropylene polymers or copolymers having a percent isotacticity of less than 70%, optionally with additional layers present provided so that the overall nonwoven fibrous loop material is a laminate having a circular bend stiffness of less than about 9 Newton and having tensile strength of at least 1500 g/2.54 cm-width.

40 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

428/92, 428/97

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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VIEW	Draw Deso	Image
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☐ 4. Document ID: US 5364504 A

L6: Entry 4 of 6

File: USPT

Nov 15, 1994

US-PAT-NO: 5364504

DOCUMENT-IDENTIFIER: US 5364504 A

TITLE: Papermaking belt and method of making the same using a textured casting surface

DATE-ISSUED: November 15, 1994

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Smurkoski; John A.	Meshoppen	PA		
Leggitt; Gary L.	Springville	PA		
Wilson; Gregory L.	Cincinnati	OH		

US-CL-CURRENT: 162/116; 162/111, 162/204

## ABSTRACT:

A backside textured papermaking belt is disclosed which is

comprised of a framework and a reinforcing structure. The framework has a first surface which defines the paper-contacting side of the belt, a second surface opposite the first surface, and conduits which extend between first and second surfaces of the belt. The first surface of the framework has a paper side network formed therein which defines the conduits. The second surface of the framework has a backside network with passageways that provide surface texture irregularities in the backside network. The papermaking belt is made by casting a photosensitive resinous material over and through the reinforcing structure while the reinforcing structure travels over a textured surface, and then exposing the photosensitive resinous material to light of an activating wavelength through a mask which has transparent and opaque regions. A process for making paper products is also disclosed which involves applying a fluid pressure differential from a vacuum source through the belt to a partially-formed embryonic web of papermaking fibers. The fibers in the embryonic web are deflected into the conduits of the papermaking belt by the vacuum pressure while the papermaking belt and the embryonic web travel over the vacuum source. Following the deflection, the paper web is impressed with the paper side network of the belt, and dried to form the final product.

2 Claims, 55 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 24

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	RMK	Draw Desc	Image
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☐ 5. Document ID: US 5260171 A

L6: Entry 5 of 6

File: USPT

Nov 9, 1993

US-PAT-NO: 5260171

DOCUMENT-IDENTIFIER: US 5260171 A

TITLE: Papermaking belt and method of making the same using a textured casting surface

DATE-ISSUED: November 9, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Smurkoski; John A.	Meshoppen	PA		
Leggitt; Gary L.	Springville	PA		
Wilson; Gregory L.	Cincinnati	OH		

US-CL-CURRENT: 430/320; 162/116, 162/117, 162/348, 162/903, 428/152, 430/322

ABSTRACT:

A backside textured papermaking belt is disclosed which is

comprised of a framework and a reinforcing structure. The framework has a first surface which defines the paper-contacting side of the belt, a second surface opposite the first surface, and conduits which extend between first and second surfaces of the belt. The first surface of the framework has a paper side network formed therein which defines the conduits. The second surface of the framework has a backside network with passageways that provide surface texture irregularities in the backside network. The papermaking belt is made by casting a photosensitive resinous material over and through the reinforcing structure while the reinforcing structure travels over a textured surface, and then exposing the photosensitive resinous material to light of an activating wavelength through a mask which has transparent and opaque regions. A process for making paper products is also disclosed which involves applying a fluid pressure differential from a vacuum source through the belt to a partially-formed embryonic web of papermaking fibers. The fibers in the embryonic web are deflected into the conduits of the papermaking belt by the vacuum pressure while the papermaking belt and the embryonic web travel over the vacuum source. Following the deflection, the paper web is impressed with the paper side network of the belt, and dried to form the final product.

10 Claims, 55 Drawing figures  
Exemplary Claim Number: 1  
Number of Drawing Sheets: 24

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 6. Document ID: US 5098522 A

L6: Entry 6 of 6

File: USPT

Mar 24, 1992

US-PAT-NO: 5098522

DOCUMENT-IDENTIFIER: US 5098522 A

TITLE: Papermaking belt and method of making the same using a textured casting surface

DATE-ISSUED: March 24, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Smurkoski; John A.	Meshooppen	PA		
Leggitt; Gary L.	Springville	PA		
Wilson; Gregory L.	Cincinnati	OH		

US-CL-CURRENT: 162/358.2; 162/348, 428/135, 428/138

ABSTRACT:

A backside textured papermaking belt is disclosed which is comprised of a framework and a reinforcing structure. The framework

## WEST Search History

DATE: Monday, March 25, 2002

### Set Name Query

side by side

### Hit Count Set Name

result set

*DB=USPT,PGPB; PLUR=YES; OP=ADJ*

L6	l1 and l2 and l3 and l5	6	L6
L5	plurality same ridges and surfaces	16313	L5
L4	L3	400	L4
L3	z\$l direction same orientation	400	L3
L2	plurality and continuous same (fibers or fibres)	18644	L2
L1	(non\$l woven or un\$l woven) and web	14605	L1

END OF SEARCH HISTORY